DII COE Production Engineering Status

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Recent Deliveries

- **Delivered**
  - ICSF 4.3.0.0 Sync Drop 2
  - UB P11

- **Approved**
  - Kernel Patch 4.2.0.0P2 for Solaris 7, HP-UX 10.20, Windows NT
  - McAfee Virus Scan (VSCANU 4.0.0.0) for Solaris 2.5.1 &7
  - Solaris Patch Update (SOLPTH 4.2.0.0) for Solaris 7

- **Initial release:**
  - **4.2.0.0 Kernel with 4.2.0.0P2 for Solaris 7,   HP-UX 10.20, Windows NT**
  - **ICSF 4.3.0.0**
  - **Approved segments:**
    - **Delivered for 4.3, tested, and approved**
    - **Approved for 4.2 with no 4.3 counterpart**
- **Segments approved after media cut-off will be made available on DADS**

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DII COE Release 4.3

- **Kernels for the new operating systems are not yet ready**
- **Beta versions will be made available from the new JPL ftp site**
- **Formal deliveries will be made once feedback from community has been incorporated and support segments (WEBBr, JAVA1, JAVA2, OS patch segments) are available**

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DII COE Release 4.3

- **Windows 2000 Professional**
  - **Use 4.2.0.2 Kernel if installing Win2K fresh**
  - **Use Win2K Upgrade segment if upgrading an NT machine**
  - **Planned ftp date: 15 September**
  - **Final delivery dependent on publication of security and configuration guidance**
- **Windows 2000 Servers**
  - **Will resume analysis after delivery of Windows Professional kernel**

DII COE Release 4.3

- **Solaris 8**
  - **Use Solaris 7 4.2.0.0 Kernel with 4.2.0.0P2 and updated IP/SVD**
  - **Planned ftp date: 11 September**
- **HP-UX 11.0**
  - **Use 4.2.0.2 Kernel for HP-UX 11.0**
  - **Planned ftp date: 11 September**

DII COE Release 4.3

- **Once the new kernels have been approved, existing segments will be tested for successful install, launch, and deinstall on a case-by-case basis**
  - Vendor confirmation for COTS products
  - Wait for redelivery on segments that are scheduled to be upgraded (e.g., iPlanet)
- **Developers should document which OSs their segments have been tested on**
  - Consider delivering for both Solaris 7 and 8 or HP-UX 10.20 and 11.0

Kernel Patch 4.2.0.xP3

- **Need to support six operating systems**
- **Developer's Guide, containing segment development guidance, will be delivered at the same time**
  - **Informal, living document**
  - **Will answer questions regarding upgrade from 3.x to 4.x, support for global data, and other programmer questions**
- **Planned delivery date: 21 November**

I&RTS Change 1
Version 4.1, August 2000

- **AOG reps will be notified once it is available**

- **No need to re-verify existing segments**

- **Changes include:**
  - **Updated references for documents and URLs**
  - **Updated toaster chart**
  - **Updated security contents**
  - **Expanded Java guidance**
  - **Wording modified to clarify intent**

- **Change 2 will incorporate Win2K updates**

Discussion Items

- **Upgrading ICSF Solaris Compiler**
- **Java Compatibility Issues**
  - **COE policy is to have one approved segment for each Java platform for each operating system**
  - **Because of differences between Java versions, this policy may not provide the support developers and integrators need**

Java Compatibility Issues

http://java.sun.com/j2se/1.3/compatibility.html

- **Maintenance releases (for example 1.2.1, 1.2.2) within a family (1.2.x) will maintain both upward and downward binary compatibility with each other.**

- **Functionality releases (for example 1.2, 1.3) within a family (1.x) will maintain upward but not necessarily downward binary-compatibility with each other.**

Java Compatibility Issues

The Java 2 SDK, v1.3 is upwards binary compatible with Java 2 SDK, v1.2 except for the incompatibilities listed below. This means that, except for the noted incompatibilities, class files built with version 1.2 compilers will run correctly in the Java 2 SDK, v1.3.

COE Java Platform Segment History

	JRE Platform	1	2	3	4
Solaris	JAVA 1	4.0.0.0/1.1.7			
	JAVA 2	4.0.0.0/1.2.1	4.0.1.0/1.2.2_05	4.0.1.1/1.2.2_05a	
HP-UX	JAVA 1	4.0.0.0/1.1.7			
	JAVA 2	4.2.0.0/1.2.2_05 (Beta for HP-UX 11)			
Windows NT	JAVA 1	4.0.0.0/1.1.8			
	JAVA 2	4.0.0.0/1.2.1	4.0.0.1/1.2.1_04	4.0.0.2/1.2.2	4.0.2.0/1.3.0

Note: Prior to "Java Platform" approach, JAVA segments were delivered under the SUNJRE prefix

Incompatibility issues have surfaced when migrating from JRE 1.2 to 1.3

- **from COE development community**

- **some outlined via Sun's web site**

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Java Segment Options

1. Make all JAVA segments available on relevant COE build list (do not 'supercede')

2. Allow developers to "roll their own JRE" within their applications

3. Re-engineer JAVA2 segment to contain all JAVA 2 JREs and prompt user for desired JRE

4. Re-engineer JAVA2 per # 3 above, but install all Java2 runtime products

Note: Different versions of JRE require different OS patches. How will appropriate patches be loaded?

Discussion Items

- **What is the preferred segmentation approach?**

- **Have your developers encountered problems with upwards compatibility?**

Back-up Slides

- **Items Modified:**
  - **Document references updated**
  - **Icon size corrected 3-17**
  - **Database-related intent clarified 5-35, 5-38, 5-42, 5-45, 5-56, 5-58, 5-59, 5-60, 5-61, 6-21, 6-25, 6-26, 6-28, 7-20, 7-27, 8-14**
  - **Security related 5-7 (now Unix only), 5-16, 6-5 (no longer Unix only)**
  - **Wording clarified   4-11, 5-67, 5-75, 5-93, 5-97, 6-42, 6-54, 7-35**

- **5-16a (NT) Files of the type *.exe, *.com, *.cmd, *.bat, *.dll, *.hlp, and *.inf within subdirectories of the segment's home directory may not be modified by Authenticated Users.**

- **5-16 b (NT) Within the Program Files directory structure, Authenticated Users will be granted no more than Read (RX) access to files of the type *.exe, *.com, *.cmd, *.bat, *.dll, *.hlp, and *.inf.**

- **6-5a If the segment uses a public/private key infrastructure, it uses the DOD PKI standard unless a waiver has been approved by the cognizant Program Manager.**

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- **Item Deleted:**
  - **5-15 (UNIX) The segment does not contain or create C shell scripts. The Bourne or Korn shell is used for shell scripts. `VerifySeg` will generate warnings, which must be explained in `VSOutput` and the *SVD* or equivalent document, for any segment that violates this requirement**.

  - **See Chapter 4 for clarification of C shell guidance**

- **Items Added:**
  - NT Security 5-16a, 5-16b
  - PKI 6-5a
  - Java 6-64 through 6-72

- **6-64 The segment conforms to the Java naming conventions specified in Chapter 8 for Java classes, packages, method names, and interface names.**

- **6-65 The segment does not use company name to name packages, interfaces, classes, or methods.**

- **6-66 The segment's jar files that are stored outside the segment use the segment prefix to ensure that the segment's jar filenames do not conflict with other segments.**

- **6-67 The segment's jar files are named with the `.jar` extension (or `.zip` for JDK-1.1 or earlier).**

- **6-68 The segment does not store any classified class or jar files in the DII COE shared jar/class directory.**

- **6-69 The segment does not replace COE-provided standard Java runtime tools, class libraries, or jar files.**

- **6-70 If the segment requires a modified version of standard Java class libraries or jar files, the segment has completely encapsulated the modifications in its own segment.**

- **6-71 The segment declares methods that are not accessible outside the class to be `private`. Segment classes that are not intended to be extended are declared `final`.**

- **6-72 The segment does not change system properties that are global to the current JVM instance.**

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